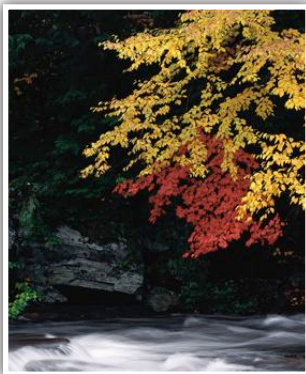




## Massachusetts Department of Environmental Protection

# ENFORCEMENT

## 2006: Smarter Enforcement, Better Results



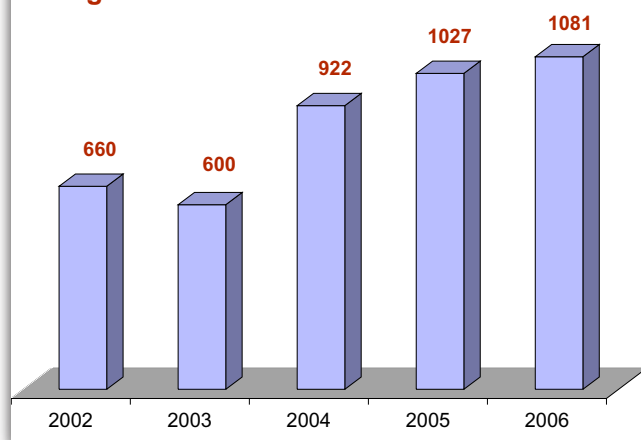
A clean, healthy and safe environment matters to all of us who live, work and play in Massachusetts. It is the mission of the Massachusetts Department of Environmental Protection (MassDEP) to protect our air, water, and other natural resources - and a strong and smart enforcement program is a critical component of this mission. This past year marks another record year for MassDEP's enforcement program. MassDEP has also continued to improve its use of innovative approaches, cutting-edge technologies, and targeted activities where there is the highest potential to prevent environmental harm and human health risk.

### FIVE YEARS OF EFFECTIVE DETERRENCE

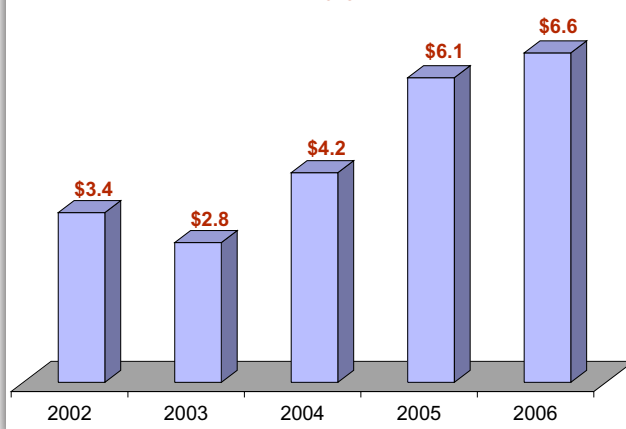
The cornerstone of any effective compliance and enforcement program is maintaining a highly visible presence in the regulated community, issuing timely and appropriate penalties, and taking other enforcement actions against environmental scofflaws. The goal is to deter current and would-be rule-breakers by effectively finding violators, and then making those violators return to compliance, restore any damage caused, and pay a penalty that exceeds the economic benefit of non-compliance.

Since 2002, MassDEP has greatly improved its ability to take swift enforcement against violators. The chart on the right shows that the number of enforcement orders and other higher-level enforcement actions issued by the agency on an annual basis has nearly doubled, from 660 in 2002 to 1,081 in 2006.

Higher Level Enforcement Actions Taken



Environmental Penalties Assessed  
In Millions



Monetary penalties, which are paid into the Commonwealth's General Fund, recover any economic advantage that violators obtained by skirting the law. Penalties counteract the notion that environmental harm can be absorbed

as a "cost of doing business," and help create a level playing field in our competitive economic market. Over the last 5 years, MassDEP has increasingly cracked down on serious violators by assessing significant penalties. The chart on the left clearly illustrates the dramatic increase in penalties assessed annually, from \$3.4 million five years ago to a record-breaking \$6.6 million this past year.

Continued on page 3

# Environmental Justice

Environmental Justice (EJ) is based on the principle that all people have a right to be protected from environmental pollution and to live in and enjoy a clean and healthful environment. MassDEP takes this principle seriously, targeting its compliance and enforcement efforts in many urban EJ communities throughout the Commonwealth.

## CANDID CAMERA INITIATIVE

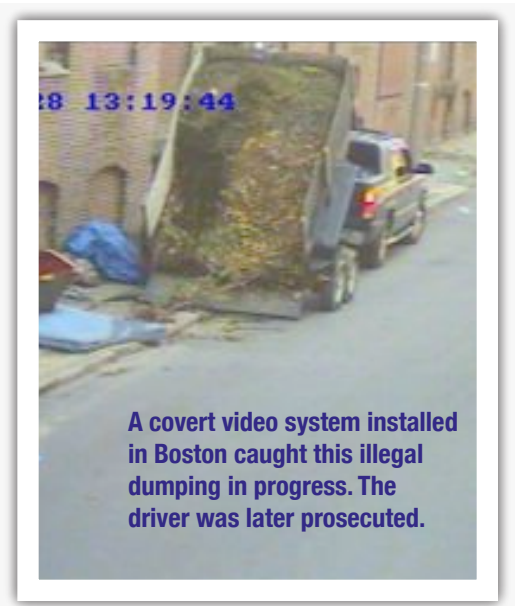
Illegal dumping is a major problem that all communities face, but it can be particularly chronic and widespread in urban areas. Illegal dumping raises significant concerns with regard to safety, property values, and quality of life. It is also a major economic burden on local government,

which typically is responsible for cleaning up illegal dump sites. Unaddressed, illegal dumps attract more waste, including hazardous waste such as asbestos, household chemicals and paints, automotive fluids, and commercial or industrial waste.

A critical concern is the health impacts from these sites. They are often easily accessible to people, especially children. Rodents, insects, and other vermin are attracted to the debris and pose significant public health and environmental risks. Scrap tires are of particular concern since they provide an ideal breeding ground for mosquitoes.

Over the past two years, MassDEP has partnered with five communities (Boston, Lawrence, Leominster, Lynn, and Worcester) to identify and prosecute illegal dumpers by installing covert video systems at frequently used dump sites. As a result, numerous dumpings were filmed and those responsible were identified. Municipalities and MassDEP were able to successfully prosecute illegal dumpers and require cleanups of these dump sites. Boston viewed the initiative so positively that it has recently

purchased four camera systems that the City will operate in its neighborhoods.



In the coming months, MassDEP will continue to deploy its Environmental Strike Force to target areas where chronic dumping occurs. The community response from this initiative has been so positive that many other communities across the Commonwealth have asked for assistance. MassDEP has purchased ten more cameras and is working with local officials in a dozen additional communities to expand the program.



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**Acting Commissioner**

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## HAZARDOUS WASTE SITE REVIEWS NEAR SCHOOLS

MassDEP prides itself on its first-in-the-nation privatized waste site cleanup program. The work of licensed site professionals coupled with MassDEP audits, has resulted in the cleanup of over 7,000 sites, the vast majority of which are completed within one year. But MassDEP's program doesn't end there. Special follow up investigations are periodically conducted to ensure compliance.

This past year, MassDEP performed an investigation to ensure that hazardous waste sites do not pose a risk to children attending school in six communities: Chelsea, Fall River, Greenfield, Holyoke, Springfield, and Worcester.

In these six cities, MassDEP personnel systematically evaluated 489 contaminated sites located

within 1000 feet of 217 public and private schools. Specifically addressed in this review was an assessment of whether students at these schools could be exposed to toxic materials at these sites by contact with contaminated soils, inhalation of contaminated dust or chemical vapors, or ingestion of contaminated drinking water. In addition to this exposure assessment, each site was also evaluated to determine if cleanup actions were being taken in compliance with state regulations and time lines.

The "bottom line" finding from this initiative is positive: there is no evidence that children at any of these schools are being exposed to oils or hazardous chemicals originating from surrounding contaminated sites. Agency staff

did, however, identify several schools located in converted industrial buildings where chemical products and residues from inside the structure may have been adversely impacting indoor air quality, and worked with appropriate officials to further explore and correct those situations.

Equally positive was a finding that over 80% of the 489 sites initially reviewed as part of this study were found to be in compliance with state cleanup requirements and deadlines. As a result of enforcement efforts taken by agency staff during the course of this initiative, this compliance rate rose to over 90 percent. Enforcement will continue until all sites are in full compliance. ■

## 2006: Smarter Enforcement, Better Results, continued from page 1

### ENVIRONMENTAL BENEFITS OF ENFORCEMENT ACTIONS

In addition to the record number of enforcement actions and penalties assessed in the last five years, MassDEP is also using compliance rate as an indicator of success and, to make our efforts more relevant to the public, MassDEP is quantifying the environmental benefits of enforcement. MassDEP has launched a program to systematically review past enforcement cases to quantify environmental improvements stemming from these cases. A few examples are listed on the right. ■

In a review of enforcement cases from 2005, MassDEP's estimate of benefits achieved include:



Safe disposal of 41,000 pounds of carcinogenic asbestos from previously mismanaged demolition/abatement operations.

Removal of 370 annual tons of air pollution (ozone precursors, particulate matter, sulfur dioxide, and toxic materials).



Restoration or replication of 370,000 square feet of wetlands.

Removal and proper management of 85,000 cubic yards of contaminated soil.



# Healthy School Initiative

At the beginning of the 2006 school year, MassDEP kicked off the Clean Schools Initiative (CSI) to improve the environment in and around schools across the Commonwealth. MassDEP has identified that lead in drinking water, toxics, diesel bus idling, and asbestos exposure threaten the health of the Commonwealth's schools.

The CSI responds to these threats by focusing on reducing the potential exposure to toxics, such as; facilitating the removal of over 1,600 pounds of mercury from school labs and health offices, examining and responding to lead in schools' drinking water, continuing to crack down on excessive diesel idling of school buses, and conducting off-hours inspections of asbestos abatement projects in schools.

Under the CSI, MassDEP will focus on compliance assistance and enforcement related efforts such as:

- **Eliminating the purchase of mercury-containing products in schools.** Under the 2006 Mercury Management Act, MassDEP will work with the Department of Education to offer assistance to school systems, helping them change their purchasing habits.
- **Maintaining the high percent of school buses (over 95%) complying with the anti-idling law.** By the end of 2006, approximately 400 more school bus drivers will be trained to the dangers of excessive diesel school bus idling, bringing the total number of school bus drivers trained to nearly 3,000 since 2005.
- **Encouraging schools to go beyond what is required by regulations to voluntarily analyze their drinking water for elevated lead and copper levels.** As of mid-2006, more than 1,200 public schools (60%) have participated.
- **Supporting special developments that provide opportunities to benefit schools,** such as a supplemental environmental project in 2007 that will provide diesel retrofits for all school buses in the Cape Cod towns of Bourne and Sandwich.

Improving environmental conditions in and around our schools - where our most

vulnerable citizens can be exposed to environmental hazards - is a high priority for MassDEP. ■

Learn more about MassDEP's compliance & enforcement efforts, including: wetlands aerial surveillance & the healthy school initiative, on MassDEP's Web site:

[www.mass.gov/dep/service/enfpubs.htm](http://www.mass.gov/dep/service/enfpubs.htm)

## Wetlands Aerial Surveillance Update

Well over half of all wetlands loss in Massachusetts occurs as a result of illegal wetlands filling. To combat this problem, MassDEP developed an innovative computer technology to analyze "before"

and "after" aerial photographs as a means to identify previously undetected wetlands violations. This highly successful, first-in-the-nation aerial surveillance has yielded impressive results.

During the past 5 years, MassDEP has executed 370 higher-level enforcement actions, assessed \$3.8 million in penalties and required the restoration of over 50 acres of illegally filled wetlands. ■

These aerial photos illustrate the destruction of 1.4 acres of wetlands.

